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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,423

Applicant(s)

WHITE, PATRICK M.

Examiner

Greg Binda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) 1-17 and 28-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20020204.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

1. Applicant's election without traverse of Group I/Species I, the torque transmitting coupling shown in Figs. 1-3, in the reply filed on May 10, 2004 is acknowledged.
2. Claims 1-17 and 28-62 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention/species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 10, 2004.

In the reply applicant identified claims 1-17 as reading on the elected species. However, those claims do not read on the elected species because the elected species lacks a "radially flexible member, received in the bore [of the female coupling member, . . . so as to induce] a super-elastic activation in the shaft" as recited in claim 1, lines 3-7. The radially flexible member 25 of the elected species is disposed adjacent to, not received within, the bore in the female coupling member 20. The limitations in claim 1, lines 3-7 are particular to the unelected species in Figs. 4-6 which is described on page 9, lines 4-13 as having radially flexible members 125 received within a female coupling member 120 so as to induce a super-elastic activation near a shaft 105.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02. The oath or declaration is defective because it claims benefits from an application, 09/860,916, that the applicant is not entitled to.

Information Disclosure Statement

4. In accordance with MPEP §§ 609, 707.05, and 2001.06(b), the prior art cited in the parent application was reviewed prior to preparation of this Office action.

Drawings

5. The drawings are objected to because they fail to show the limitations of claims 25-27. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because:

- a. Page 1, line 8, "09/860,916" should be changed to "09/860,918".

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b. Page 1, line 29 incorrectly defines the acronym "nitinol" as "nickel-titanium".

The correct definition is "Nickel Titanium Naval Ordnance Laboratory".

c. Page 2, line 2 mentions a bone with a "90-inch radius". From what species does such a bone come from?

7. The abstract of the disclosure is objected to because it begins with a phrase "Disclosed is" that can be implied. Correction is required. See MPEP § 608.01(b).

8. The specification is objected to as failing to comply with 37 CFR 1.71 and 1.75(d)(1) because the detailed description of the elected species fails to provide proper antecedent basis for the following claimed subject matter:

- a. Claim 18, line 2: "split" collet.
- b. Claim 20: "the shaft is tubular"
- c. Claim 22: "bending" stress.
- d. Claims 25-27: all limitations therein

Claim Objections

9. Claim 23 is objected to because the word "the" should be deleted in line 2.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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11. Claims 18-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The term "super" in claim 18, lines 3 & 7 and claim 19, line 2 is a relative term which renders the claim indefinite. The term "super" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not possible to determine the difference between "elastic" and "super elastic".
- b. Claim 18, line 7 recites the limitation, "a super elastic activation in the shaft". What is "a super elastic activation" and how does it manifest itself in a shaft?

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 18-23 & 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Bartholomew, US 3,610,056. Figs. 1 & 2 show a torque-transmitting coupling assembly

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comprising: a split collet member 34 having an exterior surface 68 and an opening 54; an elongated shaft member 24 made of an elastic alloy received within the opening 54; a sleeve member 38 having a bore 36 that receives the exterior surface 68 of the collet 34 and a cutting tool-bit or powered instrument 20 connected to the collet. Figs. 1 & 2 show the collet 34 and shaft 24 are in surface-to-surface contact in a fixed relative position. Figs. 1 & 2 show the shaft 24 and the collet 34 each have a cannulation that are aligned with each other so as to provide a common passage of a guide wire 32 therethrough. Fig. 1 shows an inter-positional polymer sleeve 40 which can transmit bending stress in the assembly.

14. Claims 18-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Belef et al, US 6,078,831. Figs. 12 & 13 show a torque-transmitting coupling assembly comprising: a split collet member 116 having an exterior surface and an opening; an elongated shaft member 44 made of nitinol (see col. 6, line 3) received within the opening; a sleeve member 26 having a bore that receives the exterior surface of the collet 116; and a cutting tool-bit or powered instrument 20 connected to the collet. Figs. 12 & 13 show the collet 116 and shaft 44 are in surface-to-surface contact in a fixed relative position.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krivec et al, US 5746,298 (Krivec) in view of Sohn et al, US 5,988,171 (Sohn). Figs. 1-4 show a torque-transmitting coupling assembly comprising: a split collet member 40 having an exterior surface and an opening; an elongated shaft member 30, 65 received within the opening; a sleeve member 45 having a bore that receives the exterior surface of the collet 40; and a cutting tool-bit or powered instrument (see col. 4, line 35) connected to the collet. Figs. 3 & 4 show the collet 40 and shaft 30 are in surface-to-surface contact in a fixed relative position. In col. 5, line 21 through col. 6, line 49, Krivec discloses that the contact area between collet and shaft is calibrated to slip at a preset torque before failure strength of the shaft is reached. Krivec discloses in col. 1, lines 61-64 and col. 6, lines 57-60 that the torque-transmitting coupling assembly is used in a prosthodontic screwdriver, but does not disclose the shaft being made of an elastic alloy. In col. 12, lines 10-28 and in Figs. 4 & 5, Sohn discloses that a shaft for use in prosthodontic screwdriver should be made of an elastic alloy. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the torque-transmitting coupling assembly of Krivec by making the shaft from an elastic alloy in order to provide a suitable shaft for a prosthodontic screwdriver as taught by Sohn.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Parks and Kosokawa each show a torque transmitting device. U.S. Patent Nos. 6,689,138 & 6,513,814 each show torque transmitting device.

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18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda
Primary Examiner
Art Unit 3679